

**FEATURES:**

- RoHS compliant
- 24 Pin DIP Package
- Shielded metal package
- High efficiency up to 78%
- Wide 2:1 input range
- Operating temperature -40°C to + 85°C
- Input / Output Isolation 1500VDC
- Pin compatible with multiple manufacturers
- Continuous short circuit protection



Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max. Cap. Load (μF)	Efficiency (%)
AM3T-0505S-NZ	4.5-9	5	600	1500	4700	74
AM3T-0512S-NZ	4.5-9	12	250	1500	2700	77
AM3T-0515S-NZ	4.5-9	15	200	1500	2200	77

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max. Cap. Load (μF)	Efficiency (%)
AM3T-0505D-NZ	4.5-9	±5	±300	1500	2200	76
AM3T-0512D-NZ	4.5-9	±12	±125	1500	1800	78
AM3T-0515D-NZ	4.5-9	±15	±100	1500	1000	78

NOTE: All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-9	5 Vin	VDC
Filter	π (Pi) Network			
Absolute Maximum	5 Vin		12	VDC

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec	1500		VDC
Resistance		> 1000		MOhm
Capacitance		120		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Dual Output Voltage Balance	Balanced Loads	±0.5		%
Short Circuit protection		Continuous		
Short circuit restart		Auto-recovery		
Line voltage regulation		±0.2		%
Load voltage regulation		±0.2		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise	20MHz bandwidth	75		mV p-p
Transient Recovery Time	25% Load Step	0.5		m sec
Transient Deviation	25% Load Step	±2		%

General Specifications

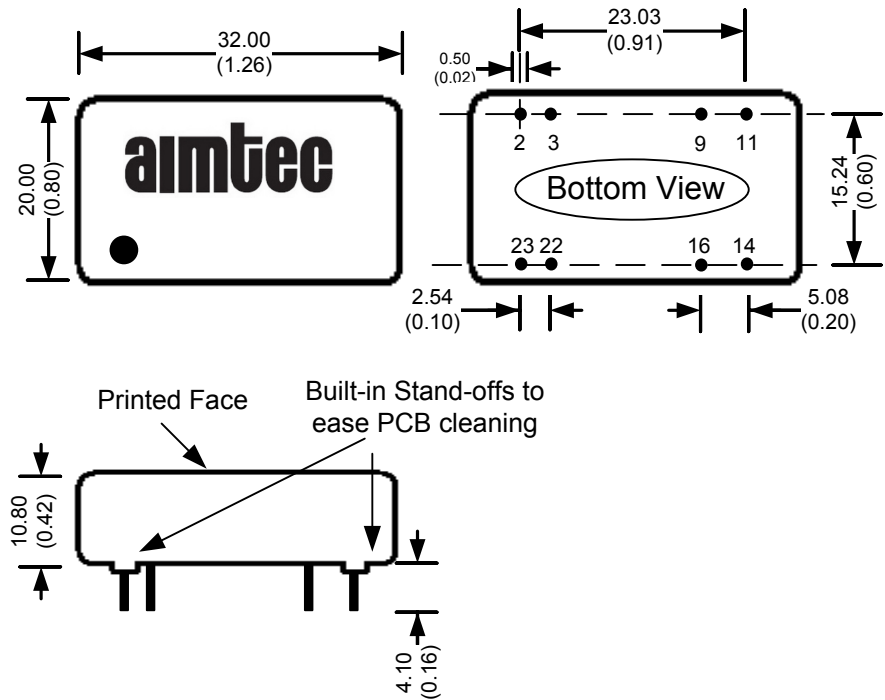
Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	200		KHz
Operating temperature	With derating above +85C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Max Case temperature			100	°C
Temperature Rise	Full Load, 25°C	25°C		°C
Lead Temperature	1.5mm from case for 10 Seconds		300	°C
Cooling	Free air convection			
Humidity			95	%
Case material	Black Anodized Aluminum			
Weight		14		g
Dimensions (L x W x H)		1.26 x 0.80 x 0.42 inches	32.00 x 20.00 x 10.80mm	
MTBF		>1 000000 hrs(MIL-HDBK -217F, Ground Benign, t=+25°C)		

Pin Out Specifications

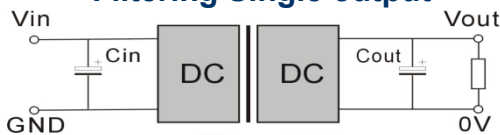
Pin	1500VDC	
	Single	Dual
1	No pin	No pin
2	-V Input	-V Input
3	-V Input	-V Input
9	No pin	Common
10	No pin	No pin
11	N.C.	-V Output
12/13	No pin	No pin
14	+V Output	+V Output
15	No pin	No pin
16	-V Output	Common
22	V+ Input	+V Input
23	V+ Input	+V Input
24	No pin	No pin

N.C.: not connected

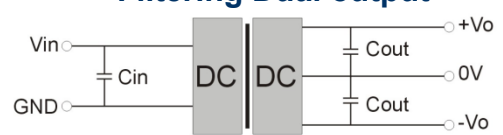
Dimensions



Filtering Single output



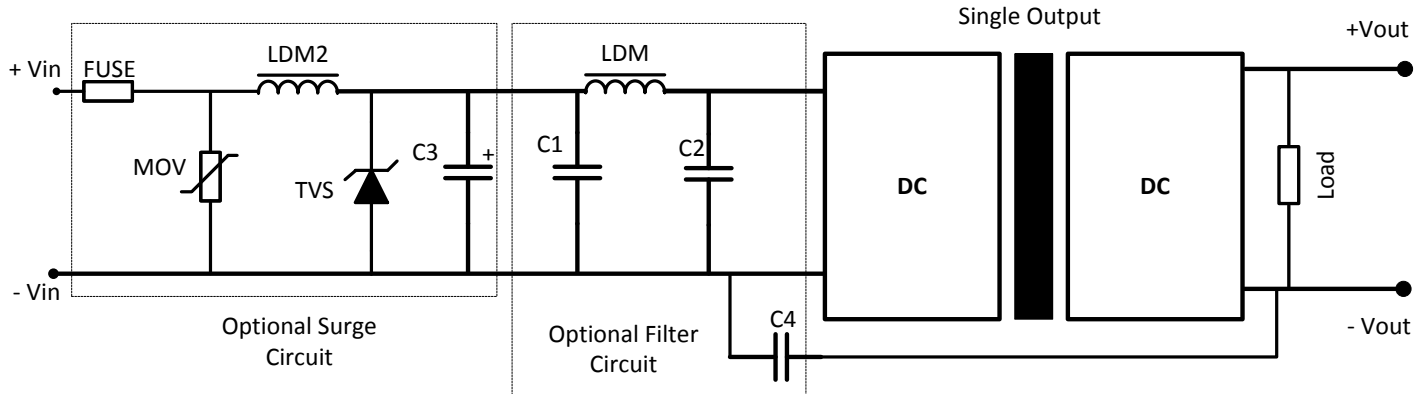
Filtering Dual output



External capacitors

Vin (VDC)	Cin (uF)	Vout (VDC)	Cout (uF)
5	100	5	10
		12	10
		15	10

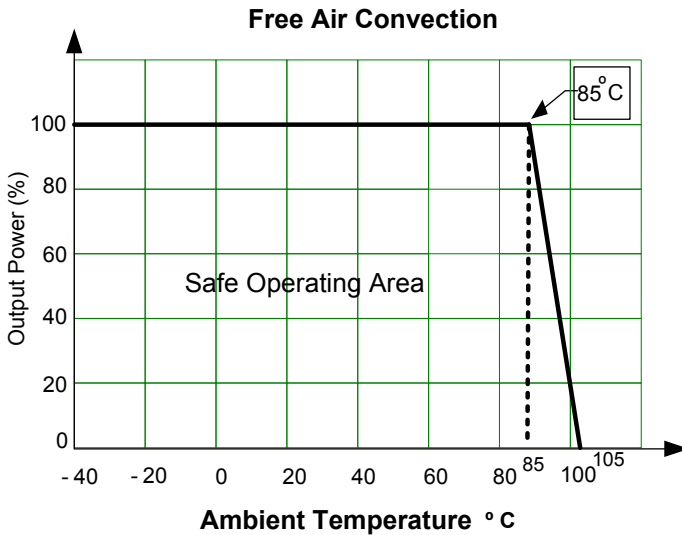
Recommended Circuit



Model	C1	C2	C4	LDM	MOV	TVS	C3	LDM2
5 Vin	4.7 μ F / 50V	4.7 μ F / 50V	1 nF / 2KV	12 μ H	-	SMCJ16A	680 μ F / 25V	-

Note: Fuse is user selectable

Derating



NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity < 75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other than the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.

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